KARTHIK PUTTOJU

SENIOR CLOUD ENGINEER | DEVOPS ENGINEER | DEVSECOPS ENGINEER

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SUMMARY

- Almost **11 years of experience in Software Quality Assurance and 4 years in Cloud Security & DevSecOps,** specializing in cloud-native application testing, security validation, and automation.
- Extensive hands-on experience with **AWS** and proficiency in **Azure, GCP, and Kubernetes**, focusing on **Cloud Security, DevSecOps, and compliance frameworks like CSPM, KSPM, CIEM, IAM, API Security, and Zero Trust Architecture.**
- Expertise in designing, deploying, and managing scalable and secure **AWS environments, including EC2, S3, RDS, VPC, IAM, and Clusters.**
- Strong knowledge of cloud security best practices, including **IAM policies, encryption, and compliance frameworks like CIS benchmarks.**
- Experienced in **building, optimizing, and securing Docker images**, including **Dockerfile creation, multi-stage builds, and best practices.**
- Hands-on expertise in **Kubernetes**, managing **deployments, scaling, and orchestration on EKS, AKS, and GKE.**
- Proficient in **Infrastructure as Code (IaC) using Terraform**, automating cloud resource provisioning for scalable and repeatable deployments.
- Skilled in **CI/CD pipeline automation with Jenkins**, streamlining software delivery.
- Experience with real-time system monitoring and observability, using **Prometheus, Grafana,** and **Log Management** for performance and reliability.
- Designed and implemented **disaster recovery, backup solutions, and high-availability** architectures to ensure business continuity.
- Strong scripting skills in Python, **Bash, and PowerShell** for cloud automation and configuration management.
- Extensive experience in **Cloud Security**, leveraging **CNAPP** tools and **vulnerability scanning, compliance validation, and security hardening**.
- Proficient in **API security** and testing using **Postman**, ensuring performance, functionality, and security measures.
- Deep understanding of networking and security protocols, including **OSI Models, TCP/IP, TLS, SIP, HTTP/HTTPS, VPC, Firewalls, Security Groups, and Load Balancing.**
- Strong grasp of **SDLC methodologies** like **Agile (Scrum) and V-Model**, ensuring smooth **SDLC-STLC** integration.
- Expertise in test strategy, execution, and automation, developing test plans, test cases, and test data aligned with **IEEE 829 standards.**
- Well-versed in multi-phase testing, covering functional, integration, regression, and UAT, with defect tracking in **Jira** and **Zephyr**.
- Maintained comprehensive **documentation for projects, confluence, cloud infrastructure, and compliance reporting.**
- Led **cross-functional teams** in **cloud security, vulnerability management, and secure DevSecOps** practices, mentoring teams and fostering a culture of **continuous learning and certification.**

CERTIFICATIONS

- **AWS Certified Solutions Architect – Associate**
- **AWS Cloud Practitione**
- **Microsoft Azure Fundamentals**
- **Certified Kubernetes Administrator (CKA)**
- **Certified Kubernetes Application Developer (CKAD)**
- **ISTQB Certified Tester**
- **Cyber Security Foundation**
- **Scrum Fundamentals Certified (SFC)**
- **Ops & DevOps Fundamentals Certified (SODFC)**

TECHNICAL SKILLS

- **Cloud Platforms:** AWS, Azure, GCP
- **Containerization & Orchestration:** Docker, Kubernetes (EKS, AKS, GKE), Helm
- **Infrastructure as Code (IaC):** Terraform
- **Cloud Security & Compliance:** CSPM, KSPM, CIEM, DevSecOps, CIS Benchmarks, NIST, Cloud Risk Management
- **Vulnerability Management & Risk Assessment:** CVE, CVSS, EPSS, NVD, Vulnerability Scanning, Patch Management
- **Application Security & IAM:** IAM, RBAC, OAuth, SAML, Okta, API Security, WAF, OWASP, Burp Suite
- **Zero Trust Architecture:** Identity and Access Controls, Secure Cloud Deployments
- **Network Security:** Firewalls, Security Groups, VPC, Load Balancing, OSI Model, TCP/IP, DNS, HTTP/HTTPS
- **Testing Types:** Functional, Smoke, Sanity, Regression, Integration, System, Interoperability, UAT
- **API Testing:** Postman, RESTful APIs
- **Scripting & Automation:** Shell Scripting(Bash, Powershell), Python
- **CI/CD & DevOps:** Jenkins.
- **Version Control:** GitHub, Bitbucket.
- **Test Management:** Jira, Zephyr, Confluence
- **Monitoring & Logging:** Prometheus, Grafana, Webhook Log Management, Wireshark
- **Database & Integrity Checks:** SQL Queries, DML Commands
- **Agile Methodologies:** Scrum, Kanban, Sprint Planning, Retrospectives, Daily Standups, & Sprint Backlog Preparation.
- **Collaboration Tools:** MS Office, Outlook, Slack, Teams, Excalidraw, VS Code, JFrog Artifactory, Harbor Artifactory
- **Leadership & Mentoring:** Team Leadership, Communication, Time Management, Accountability, Coaching & Training
- **AI & Generative AI:** ChatGPT, Copilot, Generative AI, AI Security Posture Management (AISPM)

EDUCATION

- **Master of Technology (M.Tech) in Software Engineering | Grade - Distinction**   *2010 - 2012*
  JNTU Hyderabad, Hyderabad, India
- **Bachelor of Technology (B.Tech) in Information Technology | Grade - Distinction**   *2006 - 2010*
  JNTU Hyderabad, Hyderabad, India

PROFESSIONAL EXPERIENCE

Expert SDET (Cloud & Security Test Engineer) | Aqua Security - Hyderabad
02/2021 - 12/2024

Aqua Security Solutions specializes in security cloud-native applications.

Key Responsibilities & Achievements:

- Led multi-cloud deployments (AWS, Azure, GCP, OpenShift), ensuring seamless cloud interoperability and high availability.
- Designed, deployed, and managed cloud infrastructure, optimizing compute, storage, and networking resources for cost efficiency.
- Automated infrastructure provisioning and configuration management using Terraform, reducing deployment time by 50%.
- Developed and maintained CI/CD pipelines with Jenkins, improving deployment efficiency by 35%.
- Managed containerized workloads with Docker and Kubernetes (EKS, AKS, GKE), ensuring auto-scaling, self-healing, and rolling updates.
- Configured monitoring and observability tools (Prometheus, Grafana, AWS CloudWatch) to improve system reliability and issue resolution.
- Implemented security best practices across cloud platforms, enforcing IAM, RBAC, VPC security, and Zero Trust Architecture.
- Integrated security into CI/CD pipelines (DevSecOps), implementing SAST, DAST, CNAPP, CSPM, KSPM, CIEM, and vulnerability scanning, enhancing security coverage by 30%.
- Optimized API security and testing using Postman and Burp Suite, ensuring compliance with industry security standards.
- Managed network security by configuring firewalls, WAF, security groups, and VPC peering, ensuring secure connectivity.
- Performed penetration testing on cloud applications, identifying SQL Injection, XSS, CSRF, and OWASP Top 10 vulnerabilities.
- Implemented disaster recovery and backup strategies, ensuring compliance with RTO & RPO objectives.
- Secured serverless applications using best practices in AWS Lambda, Azure Functions, and GCP Cloud Functions.
- Managed artifact repositories (Harbor, JFrog Artifactory) for secure container image storage and distribution.
- Performed cloud cost optimization, reducing unnecessary expenditures by 15% through rightsizing and reserved instances.
- Led Agile ceremonies as a Scrum Master, fostering collaboration and efficient milestone tracking.
- Mentored junior engineers, conducting knowledge-sharing sessions on cloud security, DevOps automation, and best practices.
- Designed and implemented a five-week onboarding program, reducing ramp-up time by 30% and training costs by 20%.

Key Projects Handled:

- **Cloud Security Platform:** Led multi-cloud security testing, ensuring IAM and RBAC compliance.
- **Agentless & Serverless Security**: Delivered solutions to enhance vulnerability detection.
- **Registry & Platform Integration:** Secured container registries like Harbor, JFrog & Others. Cloud Platforms with Product integration.
- **CSPM, KSPM, CIEM Security:** Developed and implemented a comprehensive security model across cloud platforms.
- **Container Security:** Conducted Trivy & Classic vulnerability scans.

Software QA Engineer | Genesys Telecom Labs - Hyderabad
05/2016 -10/2020

Genesys Telecoms Labs provides customer engagement software - CCaaS.

Key Responsibilities & Achievements:

- Designed and implemented platform infrastructure, ensuring high availability, scalability, and security across cloud and on-premises environments.
- Conducted installation, configuration, interoperability, and regression testing for CIC Server, Media Server, and Polycom Firmware to validate system stability.
- Managed SaaS applications (PureConnect) on AWS, improving system uptime and optimizing cloud resource allocation.
- Performed database validation using SQL for SQL Server, PostgreSQL, and Oracle, ensuring data consistency and reliability.
- Utilized JIRA for defect tracking in Agile environments.
- Automated API and security testing, increasing bug detection by 30%.
- Led AWS cloud testing, ensuring smooth deployments and identifying vulnerabilities.
- Optimized Agile sprints, enhancing feature delivery by 15%.
- Troubleshot and resolved platform issues, participating in on-call rotations to support critical infrastructure needs.
- Maintained Confluence documentation, detailing infrastructure designs, security assessments, and compliance reports for streamlined team collaboration.

Key Projects Handled:

- **Nuance Speech Suite 11.0.2 & 11.0.4:** Validated functionality across ASR, MRCP, and VXML.
- **Oracle Database Server 12.2:** Conducted database compatibility testing.
- **Polycom Firmware (VVX, Trio & D60 Phones):** Managed firmware validation and provisioning.
- **McAfee Endpoint Security 10.5:** Validated installation and compatibility with enterprise policies.
- **PureConnect Web Application:** Performed testing for AWS-hosted web applications.
- **CIC Product - Desktop:** Conducted functionality testing for a Windows-based

Test Engineer | Infosun Technologies - Hyderabad
12/2013 - 05/2016

Infosun Technologies focuses on software development for Risk & Compliance Services.

Key Responsibilities & Achievements:

- Led functional and security testing for web and iOS apps, achieving 95% test coverage.
- Conducted cross-browser testing (Chrome, Firefox, Safari, IE) for compatibility.
- Identified security vulnerabilities, ensuring encryption compliance.
- Designed risk-based assessments to enhance compliance and reduce errors.
- Developed and executed functional and regression test cases, covering edge scenarios.
- Automated test cases using Selenium WebDriver & TestNG, boosting efficiency by 30%.
- Performed backend validation with SQL on MySQL & Oracle.
- Conducted performance testing with JMeter for load and stress analysis.
- Used JIRA for defect tracking and sprint planning, reducing resolution time by 15%.
- Ensured seamless module integration through sanity and system testing.
- Created release notes and test reports, improving documentation usability by 30%.

Key Projects Handled:

- **CyberWatch:** Developed a security compliance tool for risk mitigation.
- **SecureWatch:** Contributed to an enterprise security platform.
- **ComplianceWatch & RiskWatch:** Led solutions for compliance audits and risk reports.
- **Compliance Guru:** Engineered a risk-based compliance evaluation tool.

ACHIEVEMENTS

- Received **Spot Award, Operational Excellence Mission Award**, and **Culture Annual Excellence Award** for contributions to team success, process improvements, and security enhancements.
- Designed the **Genesys Hyderabad Logo**, strengthening brand identity and showcasing creativity